

## Amendments to the Claims

1. (Currently amended) A method of determining a wireless system capacity, the method comprising the steps of:

determining a reverse noise floor;

obtaining a plurality of forward code domain measurements and corresponding reverse noise measurements; ~~wherein each forward code domain measurement is obtained substantially simultaneously with the corresponding reverse noise measurement, and wherein each forward code domain measurement indicates a number of active users using a wireless system;~~

~~determining a plurality of Reverse Noise Rise (RNR) values, wherein determining each RNR value includes determining an increase of (i) a respective reverse noise measurement of the corresponding reverse noise measurements, relative to (ii) the reverse noise floor, and wherein each RNR value corresponds to the number of active users indicated by the forward code domain measurement that is obtained substantially simultaneously with the reverse noise measurement used to determine the RNR value; and~~

analyzing the obtained measurements so as to obtain a plurality of data values, wherein the plurality of data values includes (i) a plurality of data values that indicate a number of active users, and (ii) for each data value that indicates a number of active users, a data value that indicates a corresponding reverse noise rise (RNR); and

determining a maximum number of users such that a probability of exceeding a predetermined RNR value is below a threshold, wherein the probability is determined from a ratio of a number of the measurements having an RNR below the predetermined RNR to a number of measurements corresponding to those at or below a specific number of active users.

2. (Original) The method of claim 1 wherein the forward code domain measurements comprise the number of active forward links.

3. (Original) The method of claim 1 wherein the step of determining a reverse noise floor is performed by obtaining reverse noise measurements during a period of inactivity.

4. (Original) The method of claim 1 wherein the step of determining a maximum number of users includes determining reverse noise rise measurements by comparing the reverse noise measurements to the reverse noise floor.

5-6. (Cancelled)

7. (Original) The method of claim 1 wherein the plurality of forward code domain measurements are obtained from a base station transceiver.

8-16. (Canceled)

17. (Currently amended) The method of claim 1, [[9, ]] further comprising:  
modifying at least one system parameter,  
wherein the at least one system parameter is a power control parameter.

18. (Currently amended) The method of claim 1, [[9, ]] further comprising:  
modifying at least one parameter,

wherein the at least one system parameter is a mobile access probe parameter.

19. (Previously presented) The method of claim 1, wherein each forward code domain measurement of the plurality of forward code domain measurements includes a data set having a timestamp, a plurality of code IDs, and power levels for each code ID.

20. (Currently amended) The method of claim 1, further comprising:  
displaying a visual indicator that depicts a number of active users versus a corresponding RNR measurement at a given time, ~~each RNR value of the plurality of RNR values versus a corresponding number of active users, and~~

wherein the visual indicator is selected from the group consisting of (i) a graph, (ii) a histogram, and (iii) a probability distribution function plot.

21. (Currently amended) The method of claim 1, ~~[[9, ]]~~ wherein the predetermined RNR threshold is 3dB.

22. (Cancelled)

23. (New) The method of claim 1, wherein the forward code domain measurements and reverse noise measurements are obtained substantially simultaneously

24. (New) The method of claim 1, wherein each forward code domain measurement and the reverse noise measurement corresponding to the forward code domain measurement are obtained substantially simultaneously.

25. (New) The method of claim 1, wherein the threshold comprises a probability threshold.

26. (New) The method of claim 7, wherein obtaining the forward code domain measurements and the corresponding reverse noise measurements is carried out at a computer remote from the base station transceiver.

27. (New) The method of claim 1, further comprising:  
displaying a probability distribution function plot that depicts a number of active users versus a corresponding RNR measurement at a given time.

28. (New) The method of claim 27, further comprising:  
converting the probability distribution function plot to a cumulative distribution function.

29. (New) The method of claim 1, further comprising:  
displaying a histogram that depicts a number of active users versus a corresponding RNR measurement at a given time.